```
absval_elim  THM

⊢  ∀P:(ℤ→Prop). (∀x:ℤ. P(|x|)) ⟺ (∀x:ℕ. P(x))  by Analyze
|
1. P : ℤ→Prop
⊢  (∀x:ℤ. P(|x|)) ⟺ (∀x:ℕ. P(x))  by Auto
|
|\
| 2. ∀x:ℤ. P(|x|)
| 3. x : ℕ
| ⊢  P(x)  by Inst: Hyp:-2 Using:[x]
| |
| 4. P(|x|)
| ⊢  P(x)  by ElimAbsVal Auto Hyp:-1
|
.\
. 2. ∀x:ℕ. P(x)
. 3. x : ℤ
. ⊢  P(|x|)  by Inst: Hyp:-2 Using:[|x|]
. |
. .....wf .....
. ⊢  |x| ∈ ℕ  by Auto
END
```